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AUTHOR Botel, Morton; Seaver, JoAnn T.
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ABSTRACT

In the context of whole language learning, the teaching of phonics can be approached in two different ways. In one situation, the teacher engages children in composing with a purpose and for an audience, during which time the children become aware of graphophonic relationships through their need to spell words. In the other situation, the teacher engages the children in choral reading and language play that proceeds from a carefully chosen or constructed folk rhyme to sentence investigation, to phonic investigation, and, finally, to mastery of the CVC (consonant, vowel, consonant) syllable pattern in single and multisyllabic words. In both situations, the teacher teaches the complex tasks of writing and reading by first engaging children in the task itself and then having them experience differentiating language into its component parts. In the writing task, the differentiation proceeds from the child writing purposefully for an audience to becoming more aware of the graphophonic system through solving the problem of how to spell correctly. In the reading task, the differentiation proceeds from the teacher presenting a chant or folk rhyme chosen or constructed because of its inclusion of words that provide repetition of certain graphophonic patterns. In either situation, the instruction integrates that which is usually taught separately--phonics, spelling, and the study of sentences. This integrated approach is an example of whole language learning and it allows more time to be devoted to purposeful reading, writing, and dialoguing in all subject areas. (HOD)

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PHONICS REVISITED: TOWARD AN INTEGRATED METHODOLOGY

Morton Botel and JoAnn T. Seaver, May, 1984
University of Pennsylvania, Graduate School of Education C-1,
37th and Walnut Streets, Philadelphia, PA 19104

To revisit phonics is to enter a debate. On the one side are the proponents of direct teaching of phonics. On the other side are those who would advocate the implicit learning of phonics through whole language experiences and responsive teaching.

Side One would cite as evidence for their position two recent research reviews sponsored by the National Institute of Education. Mason, Osborn and Rosenshine (1977), from their extensive review of relevant research and an analysis of several basal reader series, conclude that

1. early direct instruction will facilitate reading ability;

2. instructors should emphasize three interrelated factors:
   (1) much actual reading to foster rapid identification,
   (2) knowledge about the regularities of the graphophonological system, and
   (3) reliance on context in decoding;

3. it is advantageous to construct a decoding skills hierarchy;

4. there is no agreement in present basal readers as to the best hierarchy.

In the second research review, Weaver and Shonkoff (1978) recommend teaching decoding subskills in the context of a lot of real reading. They say:

> "Although we cannot provide a formula for balancing decoding and comprehension instruction in the early grades, we do recognize the critical importance of automatic decoding for comprehension. Therefore, we suggest that decoding be a primary objective of early reading instruction. This view does not exclude attention to comprehension--instruction can stress both decoding and comprehension.
>
> 1. Make decoding instruction meaningful, that is, with a predominant use of real words. Intersperse practice on words with practice on decoding syllables. We suggest the use of only those syllables that obey the spelling rules or patterns of the language.

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2. Be sure students demonstrate that they understand the materials they decode. Ask them questions about what they have read, have them read material that requires the students to follow directions given in the material, have them act out stories, and so on.

3. Give students a lot of practice reading books, magazines, and so forth, that are appropriate to their reading level. Provide students with ample opportunity to apply their decoding skills to meaningful and enjoyable materials. Make sure that students learn to identify and use new words in context.

4. Inform students that the purpose of reading is comprehension and that working on decoding and learning to recognize words rapidly will help comprehension."

On the other side of the debate is an eloquent minority who claim that children will become competent in language use, including the ability to spell and decode, through their engaging in whole language experiences and their being given instruction in decoding incidentally as needed (Smith, 1971, Goodman, 1979; Harste, 1984). Examples of whole language experiences are reading and writing with self selected purposes and reading and writing to learn in the several subject areas. This side is opposed to having a systematic phonics component in the reading program.

Like bull jumpers of ancient Crete, we propose to leap between the horns of this dilemna. The prize for accomplishing this feat is not a compromise but a defensible middle way. Most published phonics programs are too fragmented, time consuming and inefficient. Direct teaching is desirable, but, as we will show in this paper, it should be based on sounder principles of language and language learning than those found currently in most books, workbooks or classrooms. Further, we would claim that the whole language approach, to which we strongly adhere (Botel, 1981; Seaver and Botel 1982; 1983), is enhanced by certain forms of direct instruction in phonics. In this paper we will show the reciprocity between the explicit or direct teaching of phonics in what Bruner calls "the hypothetical mode" and teaching that reinforces the implicit learning of phonics through whole language experiences. The middle position which we are taking is also advocated by others: Britton (1970), Downing (1979), and Moffett and Wagner (1983).

To exemplify our position, we describe two scenes from a second grade classroom.

Phonics in the Context of Whole Language Learning

At a table made of a cluster of four desks, four children are writing. Three children are at various stages in the writing of personal narratives, the fourth is writing a letter to a

policeman who had visited their classroom with his motorcycle not long ago. The boy writing the letter is marshalling arguments to persuade the man to visit again. We look over his shoulder and see this beginning of his first draft.

> Dear Offiser Harding,
>
> I liked when you came to our class. I aspeshuly liked lerning about your motorcycle but I didnt have time to lern enuf about it.

At this point he asks for some help from his group. "How do you spell 'would?'" Someone volunteers, "w-o-o-d." He writes it and then doesn't think it looks right and says so. A discussion ensues among the four in which he is asked what he is writing. He tells, "Would you please come again?" And someone supplies the common but difficult to arrive at 'would.'

In another part of this classroom of twenty eight children, where everyone seems to be writing and conferring, the teacher is seated with another cluster of children helping a girl who is polishing a story. For part of their time together, they are looking for misspelled words. The girl is making corrections and will later enter these words in her spelling dictionary.

Scene two happens later in the day. The teacher has gathered the class as a whole for a repeat performance of a favorite folk rhyme which begins

> Betty Botter bought some butter.
> "But," she said, "the butter's bitter.
> If I put it in my batter..."

This chant is the typical opener for a unit in a system of units which provide interrelated skill development around the mastery of the most common graphophonic patterns in single and multi-syllabic words. (We report this sequence and its research basis later in this paper.) This particular unit is a review of the CVC pattern contrasting all of the short vowels and the consonants which the children have previously studied.

Returning to our scene, the teacher, following the choral reading, hands out a sheet (figure 1) she has dittoed with words in boxes which the children are to cut apart to create word cards for sentence making. On the previous day, the children worked in pairs to complete a cloze activity based on the chant, following a class performance of it.

fig. 1

Betty Botter	a bottle	Tim Mullins	is	will
make makes making	get gets getting	some butter	better	batter

All the children know, from having done a sentence making activity before, that they are to work with a partner and make as many sentences as they can in a limited amount of time. The partners take turns either sliding the cards around to make a sentence or copying the sentence. The children do much reading aloud as they test the various word combinations to see if they sound like sentences. The children continue alternating roles and adding to their list of sentences until the teacher's kitchen timer rings and they must stop. The teacher asks the children to proofread their work and sign both their names. To spur team effort, the teacher allots a point for a complete sentence, another for a capital at the beginning of the sentence and another for punctuation at the end. To conclude this activity, the teacher gathers the children's responses about what they did, what sentences they made, and what patterns they discovered as they made them. She records what they say on the chalkboard or on chart paper.

On the next day the children will again chant chorally and then settle down in pairs to making as many words as they can with cards on which are printed syllables (figure 2). At the end of their investigation the teacher will, as with sentence making, help them crystalize their discoveries and put them into words.

fig. 2

bat	bet	bit	bot	but
ter	ting	tle	ty	pat

The teacher typically sets aside 20 minutes, four to five days a week, in which she leads the whole class through units beginning with chants followed by a cloze activity, sentence making, word making and other subroutines (Seaver and Botel, 1982) which allow for individual and collaborative pupil investigations language relationships. In the course of the week, all of the children have opportunities alone or in groups up to three, to experiment with each of the unit's activities programmed for computer. Units conclude with the children taking a spelling and reading mastery "check out" of the graphophonic patterns in meaningful contexts.

The Teacher's Goals and Their Realization

These two scenes in a second grade exemplify, in part, the teacher's language learning goals for her children, including her goals for their phonics learning. She might state her goals in this way:

1. Children will expect meaning and social relevance as they read, write and communicate with others.

2. Children will expect system as they read, write and communicate with others.

Both scenes, in different ways, are shaped by those goals as are most of the learning experiences the teacher provides for her children in all subject areas. However, our focus in this paper is phonics. We show in the first scene how the teacher typically engages her children in composing with a purpose and for an audience, during which time the children become aware of graphophonic relationships through their need to spell words. In the second scene we show how she engages the children in choral reading and language play which proceeds from a carefully chosen or constructed folk rhyme to sentence investigation, to phonic investigation and, finally, to mastery of the CVC syllable pattern in single and multi-syllabic words.

The Theoretical Argument for This Way of Working

We begin with the premise that some awareness of the graphophonic system is useful to children for spelling and for decoding. However, the awareness that we propose is different from what is typically taught in the name of phonics. We object to the teaching of phonic elements unrelated to the graphophonic system and we object to having children memorize abstract formal rules and definitions.

Are the two ways that we propose for children to gain graphophonic awareness a defensible alternative to typical phonics instruction? To address that question we will look at two influences on curriculum development: first, the nature of the subject matter, and, second, the transaction that the learner has with the subject matter.

1. The nature of language as a subject matter

The creators and users of conventional reading programs in schools today treat language atomistically as it relates to phonics instruction. In this view, language consists of discrete elements of letter and sound correspondences (Mason, Osborn and Rowshine, 1977). However, as Gibson and Levin (1977) warn:

> "Task analysis may be equally useful in educational psycholology as in industrial psychology. But an intellectual task is not simply a sum of components -- especially reading, which is more than one task and differs

with the material and reader's purpose. Even if it were, one could miss an essential component. Something is missing in these analyses. They do not, as currently presented, reach toward adaptive, cognitive strategies of extraction of higher-order structure..."(pp. 260-1).

In opposition to the atomistic view, linguists, sociolinguists and psycholinguists view language as systemic (Chomsky, 1968; Hymes, 1974; Goodman, 1979; Harste et al, 1984). Language is not the sum of its parts. It is an interacting system of at least six subsystems. The subsystems include:

- the pragmatic (the communication event),
- the textual (the structure of the text),
- the rhythmic (intonational patterns),
- the semantic (word meaning and concept in context),
- the syntactic (basic sentence patterns and rules for combining them),
- the phonic and the graphophonic (sound patterns and letter/sound patterns).

How would one construct a phonics program based on a systemic theory? We have briefly described one way. Gibson and Levin (1975) provide this cognitive principle for constructing a program:

> ...when teaching a complex task it is preferable to start training on the task itself, or a close approximation to it, rather than giving training on each component skill independently and then integrating them.
> ...The child should encounter sentences from the very beginning of training because the sentence is the minimal unit which (1) insures comprehension, and (2) provides all three types of information (phonological, syntactic, and semantic). A differentiation model will be followed, that is, the comlete sentence will be introduced first and then will be broken down into component parts. (p. 324)

We take seriously their view of beginning with training on the task itself and the differentiation model. We believe, however, that the pragmatic, textual, and rhythmic subsystems should be included in the types of information available to the child. Therefore, children should begin with larger textual units than the sentence, ones that have some social function. We refer you to our two second grade scenes to see how this might be done through, on the one hand, children's composition and, on the other, interrelated skill units which begin with a text suitable for choral reading.

2. The learner's transaction with language as a subject matter

As noted, conventional programs make much of the separate graphophonic elements, listing them in taxonomies and teaching them as specific skills. But, as Vygotsky (1962) pointed out, such a method of analyzing "...complex psychological wholes into elements...may be compared to the chemical analysis of water into hydrogen and oxygen, neither of which possesses the properties of the whole and each of which possesses properties not present in the whole (p.3)." Furthermore, he says, "It leads us...into serious errors by ignoring the unitary nature of the process under study. The living union of sound and meaning that we call word is broken up into two parts, which are assumed to be called together merely by mechanical associative connections (p. 4)."

How, then, is differentiation to take place and what is our pedagogic means?

The method we propose, which contains the dynamic interrelationships of meaning and sound, combines, as Vygotsky asserted, "...the advantages of analysis and synthesis, and it permits adequate study of complex wholes (p. 6)."

We can be guided by Bruner's distinction between two kinds of teaching: expository and hypothetical (Bruner, 1973).

> "In the former, the decisions concerning the mode and pace and style of exposition is principally determined by the teacher as expositor; student as the listener...But in the hypothetical mode, the teacher and the student are in a more cooperative position...The student is not a bench-bound listener but is taking a part in the formulation and at times may play the principal role in it...it is largely a hypothetical mode which characterizes teaching that encourages discovery... Discovery...is in its essence a matter of rearranging or transforming evidence in such a way that one is enabled to go beyond the evidence so reassembled to new insights." (p. 83)

He goes on to say:

> "Emphasis on discovery and learning has precisely the effect on the learner of leading him to be a constructionist, to organize what he is encountering in a manner not only designed to discover regularity and relatedness, but also to avoid the kind of information drift that fails to keep account of the uses to which information might have to be put. Emphasis on discovery, indeed, helps the child to learn the varieties of problem solving, of transforming information for better use, and helps him to learn how to go about the very task of learning. (p. 87)
>
> ...discovery...results most often from a succession of

constructing representations of things. We do something that is manipulative at the outset -- literally, provide a definition of something in terms of action...That is a start. But it is a start that provides the material for a second step. For having acted...we are then able to turn around on our own actions and represent them. Manipulation and representation, then, in continuing cycles are necessary conditions for discovery. They are the antithesis of passive, listenerlike learning. (p. 101)

Intuition...is founded on a kind of combinatorial playfulness that is only possible when the consequences of error are not overpowering or sinful." (p. 104)

What research is there to support Bruner's advocacy of the hypothetical mode of teaching?

Gibson and Levin (1975) reviewed the research on the hypothetical mode of teaching and came to these observations and conclusions:

1. "It appears that a set to look for structure can be developed (albeit with difficulty) and can transfer to new problems..." (p. 300)

2. "Learning to abstract spelling patterns involves active participation by the scholar, not memorizing a verbal rule or simply being shown." (p. 301).

3. "As his economy of processing increases, so does the child become more aware of what he is doing, how he is controlling his own intellectual processes in an autoregulatory fashion. He is learning, in short, how to learn on his own." (p. 86)

4. "...getting the student to arrive at a generalization on hs own has value in addition to its transferability, and that is its motivational value. Discovery of structure (reduction of uncertainty) is reinforcing." (p. 70)

In both scenes which we described earlier, the teacher teaches the complex tasks of writing and reading by first engaging children in the task itself and then having them experience differentiating language into its component parts through hypothetical modes of learning. In the writing task, the differentiation proceeds from the child writing purposefully for an audience to becoming more aware of the graphophonic system through solving the problem of how to spell correctly.

In the reading task, the differentiation proceeds from the teacher presenting a chant or folk rhyme chosen or constructed because of its inclusion of words which provide repetition of certain graphophonic patterns. Children experience a whole text through deciding how to playfully and communally read it chorally, and then, in collaboration with peers, they synthesize elements of the text into many different sentences and words

("combinatorial play") leading to an analysis through reconstruction and the finding of recurrent patterns.

The teacher initiates the activity by providing texts, choosing the aspects of linguistic subsystems to be explored, setting problem-solving tasks and, following the children's exploration, helping them formulate what they have discovered. In short, the teacher orchestrates what Bruner calls the hypothetical mode of learning so that children become aware of the graphophonic elements and their relationships through active manipulation of these elements in rich meaning contexts. In contrast to the teacher functioning in the hypothetical mode, teachers who teach in an expository manner present linguistic elements and rules for the children to memorize and apply in exercises abstracted from whole language. Children are less active partners in learning and more "bench bound listeners."

In this regard, Bruner, in commenting on Vygotsky's insights says: "For it is the internalization of overt action that makes thought, and particularly the internalization of external dialogue that brings the powerful tool of language to bear on the stream of thought. " (p. vi, Introduction to Vygotsky, 1962) The "actions" we propose in this paper are performing chants and arranging elements; the dialogue we propose is among peers. Both action and dialogue serve problem solving.

James Britton (1970) urges teachers to find ways of simultaneously teaching reading and writing. He cites sentence making and word making as promising methods since "...composing and reading would be more directly related to a child's spoken language and the contexts in which that occurred...As children compose...in this way, they are exploring the systems that govern written English." (p. 158)

Is the hypothetical mode of teaching phonics feasible in a typical classroom?

Typically teachers provide reading instruction to a class that has been divided into three or more ability groups. The hypothetical mode lends itself to whole class and heterogeneous groupings. With such a structuring of the class, considerable time is saved.

With whole class/heterogeneous grouping, when children solve problems collaboratively, the pragmatic subsystem comes into play in investigations where "the consequences of error are not overpowering or sinful." In such a setting, all students are regarded as aspiring readers and writers and no children are regarded as "in the lowest reading group." We believe that, in the setting we describe, all children are given an opportunity to achieve their cognitive potential. Gallagher and Reid (1981) cite Piagetian studies reporting that, in situations in which a more advanced child works with a less advanced child, both children gain, due, they speculate, to what Piaget calls "reflexive abstraction." Reflexive abstraction has two facets:

" projection to a higher level of what was known at a lower level and reorganization of what was known in order to program to a richer level." (p. 155)

A Scope and Sequence for Presenting the Graphophonic Patterns for Systematic Study

We have shown in this paper how the several subsystems of language can be orchestrated in the service of learning phonics. What is still needed for teacher planning, as well as for reporting on children's progress, is a defensible scope and sequence for phonics instruction.

As Mason noted (1977), while it is advantageous to construct a graphophonic hierarchy, the variations in major basal programs reflect that no agreement exists on the best hierarchy. However, there are research data from linguistics, psycholinguistics and cognitive psychology that suggests a reasonable ordering, especially for the earliest stages of reading acquisition, the focus in this paper.

1. On the general order of presenting sight words and graphophonic information

According to Rozin and Gleitman, there are important general findings which should influence the ordering of the scope and sequence for a graphophonic strand in the primary reading curriculum. First, it is easier for young children to learn sight words than syllable/sound relationships and, second, it is easier for them to learn syllable/sound relationships than letter/sound relationships (Rozin and Gleitman, 1977).

As to beginning with sight words, experimental evidence shows that children easily learn their first written words by association (Gough and Hillinger, 1979). Children learning sight words, according to Tunmer and Bowey (1984), may also be developing word awareness, that is, "...the metalinguistic ability to treat words as objects of thought..." (p. 156)

2. On presenting CVC as the first graphophonic pattern for mastery

After learning some sight words and concurrently becoming aware of their beginning consonants and rhyming elements through whole language experiences and "combinatorial play," children should work for mastery of the CVC pattern in spelling and reading. Research supports the study of the CVC pattern for reasons of structural validity: graphic contrast, phonic contrast and high frequency (Gibson and Levin, 1975, p. 327) Mason has reported that instruction in CVC words has both structural and experimental validity (Mason, 1977, p. 14).

3. On presenting the CVCe as the next graphophonic pattern for mastery

Gibson and Levin (1975, p. 324) propose that CVCe words be introduced early in beginning reading programs and in contrast with CVC words both for reasons of the frequency of the pattern but also because of the cognitive principle which they call "set for diversity." In other words, by contrasting the CVC and CVCe pattern in such words as hop, hope or can, cane, children will come to recognize that letters may represent more than one sound.

4. On choices for the next graphophonic patterns to present

Given the general research findings cited above, it seems fairly clear what the shape of a phonics program ought to be in the first stages of instruction. However, from these stages on, when plotting a program design, we could argue with equal force for three options: (1) introducing the alternative spellings of the long vowel sounds and the other vowel spellings, (2) introducing the consonant blends and digraphs, or, (3) introducing combinations of these. This decision would depend on whether we give greater weight to the criterion of frequency or of regularity of spelling. In the context of the kind of program we have been describing in this paper, it probably would make little difference. There is no structural or experimental evidence to guide us.

One possible mapping for a phonics program for primary grades, which we have chosen, can be found in the following chart (Botel and Seaver, 1981-82).

Level A

The chart that follows represents the graphophonic focus for a sequence of units for a late kindergarten or first grade level. An entry like b all means the word ball is introduced as a sight word in the context of a chant in which the all pattern is emphasized as well as the initial consonant b. The children manipulate the initial consonant and the spelling pattern through word making activities. They focus on the initial consonant through another chant.

The order of the beginning consonants and rhyming elements for the series of units were chosen on the basis of both frequency and combinability. In other words, by manipulating these beginning consonants and rhyming elements, children can make many different words from the very beginning of their work.

b	all	l	ook	d	ot	r	ing
m	ay	p	an	j	et	n	ight
c	ake	h	at	f	un	g	oat
t	en	w	ill	s	ell		

Level 3

The next chart represents the graphophonic focus for a series of units for the high first or second grade level. An entry such as CaC/CaCe in this chart represents words like hat/hate or cap/cape. Capital C represents single consonants as well as the digraphs sh, th, ch, wh. The unit in which these syllable spelling patterns would be studied has been described earlier in this paper.

CaC/CaCe

CaC/CaCe/CaiC

CaC/CiC

CiC/CiCe

CiC/CiCe/CighC

CeC

CeaC/CeeC

CoCe/CoaC/Co/Cow

CuC/CuCe/CooC/Cue

Level C

The following chart represents the graphophonic focus for a series of units for the high second or third grade level or for remedial work at the middle grade level. At this level, CC represents a single consonant or two or three letter consonant blends or consonant digraphs. V represents any vowel letter.

CVC/CVCe

CCVCC/CCVCCe

CCeeCC/CCeaCC/CCe

CCay/CCaiCC/CCeigh

CCow/CCoaC/CCoCC/CCo

CCighC/CCy/CCie/CCiCC

CCooCC/CCew/CCue

CCoCC/CCouCC

CCouCC/CCowCC

CCarC/CCare/CCair

CCirC/CCerC/CCurC/CCorC

CCoiC/CCoy

CCorC/CCore/CCall/CCawC/CoughC/CCaughC

A Spiraling Curriculum for Phonics Instruction

The curriculum has two aspects, learning experiences and a scope and sequence of content. The learning experiences which we advocate could be represented in a grammar of instruction as a unit which begins with children experiencing a whole language event and proceeds to a relational investigation of its constituent subsystems. These instructional units spiral around a defensible hierarchy of graphophonic elements in words.

There is another spiral, however, within the scope and sequence: all the graphophonic elements introduced to the children spiral around the structure and meaning of a word. It is very easy for children to learn the many graphophonic elements presented in this curriculum design, not only because of the strong mnemonic effect of the chants, but also because all the graphophonic elements are mapped onto the word. That mapping extends from the more regular spellings to the less regular spellings of high-frequency syllable spelling patterns. At each level of the spiral, children contrast new graphophonic patterns to familiar ones. In the end, all the arrangements of the elements are held together for the children by their sense of the word, which has been continuously reinforced as they arranged, rearranged, substituted and added to reconstruct many words. In short, the learning experiences of the curriculum and the scope and sequence of graphophonic elements spiral around the structure and meaning of the word.

How much phonics is enough?

A phonics program need not cover all the graphophonic elements. Rather it should aim at the most productive, what Gibson and Levin (1975) call "economical regularities." The children's expectation of meaning and system make exhaustive instruction unnecessary. Once a reader reaches a certain level of automatic response, the syntactic and semantic systems together with extrapolations from the most common graphophonic patterns provide sufficient cues to compensate for explicit knowledge of unproductive spelling patterns.

In the middle grades, when children increasingly encounter latinate words, their spelling investigations more appropriately shift from graphophonic relations among common Anglo-Saxon derived words to the syntactic and semantic relationships of latinate words. Investigations of this sort make sense of such seeming spelling anomalies as the g in the word sign by relating sign to its relatives signify or signal(Chomsky, 1970). In all of this, however, the teacher should not lose sight of her goal: children's independence in decoding and finally their independence from overreliance on decoding.

A Testing Program for Measuring the Pupil's Mastery of the Graphophonic System

The words and patterns listed in the Levels B and C represent not only what is taught at those levels but also what can be tested for mastery. No test is warranted, we believe, for the units in Level A because, at this early level, the children need low risk opportunities to experiment with the system. In Levels B and C, we propose testing for mastery at the end of each unit. What should be the form of such a test?

We propose a maze format for simultaneously assessing decoding and comprehension. In this format, a word is deleted

from a sentence by the test maker which is to be replaced by the test taker with a word choice to correctly and meaningfully complete the sentence. For an end-of-phonics-unit test, we would compose sentences using the syllable spelling patterns stressed in that unit. For example:

Bitter butter is not better bottle botter.

Mom said, "It didn't river matter letter."

Maze tests have been found to be valid and reliable estimates of decoding and comprehension. If children can read and understand 90 to 100% of such sentences, it is reasonable to conclude that they have mastered the syllable spelling patterns taught at that level as well as their subpatterns. The maze test, then, provides a method for accountability using any acceptable scope and sequence.

A more general test of decoding and comprehension could test acievement at six levels (Botel, 1981). The following words or patterns encompass all of the patterns typically taught in the primary grades, though not necessarily in the same order. Using such a test, children would be encouraged but not forced to try all levels if they felt comfortable doing so. A child's performance would result in a profile of achievement in the subpatterns.

Level 1 sight words in context

2 CVC words in context

3 CVCe words in context

4 CCVC and CCVCe words in context

5 CCVCC and CCVCCe words in context

6 CCVVCC words in context

The Larger Framework for a Phonics Program

At the start of this paper, we placed ourselves in the middle of a debate between the proponents of direct phonics instruction and the proponents of indirect phonics instruction through whole language learning. Throughout this paper, we sort things out a bit differently than would the debaters on either side.

To the proponents of direct instruction in phonics, we propose a more integrative and efficient form. First, we claim that children will learn a great deal about phonics while working through the various stages of the writing process. Secondly, we describe children beginning their study of phonics with a verse selection that incorporates the several subsystems of language

and then becoming aware of the syntactic and graphophonic subsystems through collaborative problem solving experiences. This form of instruction integrates what is usually taught separately as phonics, spelling and the study of sentences. We have called this manner of instruction a hypothetical mode, after Bruner's use of the term -- something we have called elsewhere "investigating and mastering linguistic systems" (Botel, 1981, and Seaver and Botel, 1983). The teacher can directly teach this approach to the whole class, thus avoiding differentiation of the class into ability groups. We claim that this form of direct instruction provides a sounder way for children to achieve metalinguistic awareness at the same time that they learn to expect and search for system as well as meaning. We propose a reasonable sequence for the study of graphophonic syllable patterns as well as a valid, reliable and time-efficient means for measuring children's mastery of them.

To the proponents of whole language instruction, we would say, first, that the kind of direct phonics instruction we propose is itself an example of whole language learning. Secondly, the integrative approach we propose takes much less time than the typical approach. The direct instruction we propose leaves considerably more time for purposeful reading, writing and dialoguing in all subject areas: literature, social studies, science and the arts.

REFERENCES

Botel, M.. Botel reading milestone tests. Philadelphia: Botel-Sheppard, 3458 W. Penn Street, Philadelphia, Pennsylvania 19129. 1980.

Botel, M. A Pennsylvania comprehensive reading/communication arts plan. Harrisburg, Pennsylvania: The Department of Education of the Commonwealth of Pennsylvania, 1981.

Botel, M. & Seaver, J. Language arts phonics, A, B, C. Philadelphia: Botel-Sheppard, 3458 W. Penn Street, Philadelhia, Pennsylvania 19129, 1981.

Britton, J., Language and learning. New York: Penguin Books, 1970.

Bruner, J., On knowing: Essays for the left hand. New York: Atheneum, 1973.

Chomsky, N. Language and mind. New York: Harcourt and Brace & World, 1968.

Downing, J. Reading and reasoning. New York: Springer-Verlag, 1979.

Elkonin, D.B. USSR in J. Downing (Ed.) Comparative Reading. New

York: Macmillan, 1973.

Gallagher, J. M. & Reid, P.K. The learning theory of Piaget and Inhelder. Monterrey, California: Brooks Cole Publishers, 1981.

Gough, P.B. and Hillinger, M.L. "Learning to read: An unnatural act." Paper delivered at the National Conference of the Orton Society, Indianapolis, Indiana, November, 1979.

Gibson, E.J. & Levin, H. The psychology of reading. Cambridge, Massachusetts: MIT Press, 1975.

Gleitman, L.R. & Rozin, P. "The structure and acquisition of reading I: Relations between orthographies and the structure of language." In A.S. Reber and D.L. Scarborough (Eds.) Toward a psychology of reading. Hillsdale, New Jersey: Erlbaum, 1977.

Goodman, K.S. "Emergence of new methodology for reading instruction." In K.S.Goodman, (Ed.)Miscue analysis: Applications to reading instruction. Urbana, Illinois: Eric Clearinghouse on Reading and Communication Skills and National Council of Teachers of English, 1979.

Harste, J.C., Woodward, V.A. & Burke, C. "Examining our assumptions: A transactional view of literacy and learning." Research in the teaching of English, Vol. 18, No.1, February, 1984.

Hymes, Dell. Foundations of sociolinguistics Philadelphia, Pennsylvania: University of Pennsylvania Press, 1974.

Moffett, J. and Wagner, B.J. Student-centered language arts and reading, K-13: A handbook for teachers. Boston: Houghton-Mifflin, 1983.

Mason, J.M., Osborn, J.H., & Rosenshine, B.V. A consideration of skill hierarchy approaches to the teaching of reading. Technical Report No. 42. Champaign, Illinois: University of Illinois at Urbana-Champaign, 1977.

Rosner, J. The development and validation of an individualized perceptual-skills curriculum. Learning Research and Development Center, University of Pittsburgh. Publication 1972/7.

Rozin, P. & Gleitman, L.R. "The structure and acquisition of reading II: The reading process and the acquisition of the alphabetic principle." In A.S. Reber and D.L. Scarborough (Eds.) Toward a psychlogy of reading. Hillsdale, New Jersey: Erlbaum, 1977.

Seaver, J.T. & Botel, M. Literacy frameworks. Philadelphia: Botel-Sheppard, 3458 W. Penn Street, Philadelphia,

Pennsylvania 19129, 1980.

Seaver, J.T. & Botel, M. "A first-grade teacher teaches reading, writing, and oral communication across the curriculum." The reading teacher. Newark, Delaware: International Reading Association, March, 1983. pp. 656-665.

Smith, F. Understanding reading. New York: Holt, Rinehart and Winston, 1971.

Tunmer, W.E. and Bowey, J.A. "Metalinguistic awareness and reading acquisition." in W.E. Tunmer, C. Pratt, and M.C. Herriman (Eds.) Metalinguistic awareness in children: Theory, research, and implications. New York: Springer-Verlag, 1984.

Weaver, P. and Shonkoff, F. Research within reach. Newark, Delaware: International Reading Association, 1979.

Vanesky, R.L. "Reading acquisition: The occult and the obscure." In F.B. Murray and J.J. Pikulski (Eds.), The acquisition of reading: Cognitive, linguistic, and perceptual prerequistion. Baltimore: University Park Press, 1978.

Vygotsky, L.S. Thought and language. Cambridge: The M.I.T. Press, 1962.